

Date: Fri, 10 Dec 93 04:30:51 PST  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V93 #128  
To: Ham-Homebrew

Ham-Homebrew Digest                      Fri, 10 Dec 93                      Volume 93 : Issue 128

Today's Topics:

                    Built in transmatch  
            Kenwood HT Batteries - homebrew charger  
                    replacement transistors

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 9 Dec 93 00:07:38 GMT  
From: psinntp!arrl.org@uunet.uu.net  
Subject: Built in transmatch  
To: ham-homebrew@ucsd.edu

Has anyone figured how to design an RF output stage  
with a built in transmatch that can't be mistuned  
as a frequency multiplier?

This seems to be a big drawback of most tube output  
networks--while they work fine as limited range  
transmatches how can you tell you have it tuned  
up in the proper band? It isn't always practical to  
have an appropriately located station listen to  
see which tuning settings are the right ones!

Obviously, putting in a low pass filter between the  
matching network and the transmatch is one solution,  
but modern transceivers \*already\* do that.

Anyone with a cheap and simple solution?

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear  
Operating Interests: 10 GHz CW/SSB/FM  
US Mail: c/o ARRL Lab 80/40/20 CW  
225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz  
Newington CT 06111 modes: CW/SSB/FM/packet  
amtor/baudot  
Phone (if you really have to): 203-666-1541

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Date: 9 Dec 93 21:42:30 GMT  
From: ogicse!emory!europa.eng.gtefsd.com!library.ucla.edu!agate!dog.ee.lbl.gov!  
biocca@network.ucsd.edu  
Subject: Kenwood HT Batteries - homebrew charger  
To: ham-homebrew@ucsd.edu

In article <755368487snx@skyld.tele.com> jangus@skyld.tele.com (Jeffrey D. Angus)  
writes:

>  
>In article <35923@dog.ee.lbl.gov> biocca@csg.lbl.gov writes:  
>  
> > I'm considering building a charger for the TH-78a batteries. There  
>  
> Well, unless you \*like\* to experiment, why not just buy a kenwood  
> charger.

If I wasn't interesting in experimenting, I don't think I would have  
posted here in rec.radio.amateur.homebrew. :-)

I considered buying a Kenwood charger, though I am more impressed at this  
point in the W&W model (that works with any brand batteries).  
Even if I do buy one of these, I still would like a fast charger in each  
vehicle (we have two hams in the family). At \$90 each that makes homebrew  
more attractive. Will the Kenwood charger even run from 12VDC?

> These battery packs cost from \$50 to \$100 and the radios a lot more.  
> Is the savings in homerolling worth the risk of ruining either a  
> battery pack or the radio?

How much does it cost to build one? - If I use 12VDC input (the batteries  
I'm charging are 7.2V, not the 12V ones) the cost of the charger is  
one chip plus about three bucks in misc parts. I don't have a price on the  
chip, but perhaps it is another five. The hardest part is fabricating  
a convenient connection to the battery.

Risk - there is some risk to the batteries of course, but none to the radio - it has polarity protection and can handle the full 12 volts. I plan to set it up to charge the battery outside the radio anyway, so there is no risk of leakage contaminating the rig. That also gives me the option of charging through the top of the battery avoiding the circuitry that appears to be inside the battery. This also allows me to tape over the contacts on the bottom of the battery and avoid problems with external shorts there.

This chip is designed to do this exact job, and has extensive data sheets, so I suspect the risk is minimal. I'd do all testing on AA nicads, risking about \$5 of batteries total. The chip I'm looking at is the MAX713 negative delta V nicad battery charger chip. It monitors voltage, temperature, current, and time if you want to use all the features. Temperature requires internal thermistors in the pack, but is not necessary except for charge rates greater than 2C.

> Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NA | "It is difficult to imagine our  
>Internet: jangus@skyld.tele.com | universe run by a single omni-

Alan K Biocca  
WB6ZQZ

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Date: 9 Dec 93 16:06:45 GMT  
From: ogicse!cs.uoregon.edu!sgiblab!swrinde!cs.utexas.edu!cactus.org!  
majec@network.ucsd.edu  
Subject: replacement transistors  
To: ham-homebrew@ucsd.edu

A question. I am about to build a 4 to 6 watt amp, the design of which comes from page 61 of the Solid State Design book by the ARRL. They call for a GE D446C transistor, and suggest a 2n5321 as a replacement worth experimenting with. Well being very new to this hobby I am not sure if the design of the amp is highly dependent on the characteristics of those particular devices or can I substitute another device. If any of you are familiar with the amp design please make some suggestions for replacement transistors for me.  
Thanks

Ed Guinn  
kb5ruf  
majec@cactus.org

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End of Ham-Homebrew Digest V93 #128

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